MISSOURI DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION
CERTIFICATION REQUIREMENTS FOR
MATHEMATICS SPECIALIST (GRADES 1-6)

I. **GENERAL REQUIREMENTS:**
   A. A valid Missouri permanent or professional certificate of license to teach; and
   B. Two (2) years of successful mathematics teaching experience;
   C. Must have recommendation of designated official for teacher education in the college or university with an approved program of study;
   D. Must complete the content knowledge or specialty area test designated by the State Board of Education with a score equal to or greater than the Missouri Qualifying Score.

II. **PROFESSIONAL REQUIREMENTS** (minimum of 24 semester hours beyond initial certification)
   A. **Mathematical Content Knowledge**
      1. Mathematics Knowledge – concepts, structures, skills and processes of school mathematics from an advanced perspective including number/operation; geometry/measurement; algebra; probability and statistics; and
      2. Specialized Mathematics Knowledge of Teaching – mathematics that relates to helping students understand school mathematics, often referred to as *mathematics knowledge for teaching* (MKT).
   B. **Pedagogical Content Knowledge (PCK) for Mathematics**
      1. Understanding of how students and adults learn mathematics;
      2. Effective teaching strategies for supporting mathematics learning;
      3. Curriculum trajectories, materials, standards and methods for aligning curriculum systems; and
      4. Evaluation of mathematical abilities and achievement including formal and informal diagnostic procedures and in prescriptive instruction.
   C. **Foundations of Leadership**
      1. Effective communication strategies within and outside school;
      2. Professional development expertise ability to plan, develop, implement and evaluate learning environments for teachers;
      3. Ability to establish and nurture professional communities of learners—students, parents, and educators; and
      4. Informed about and contribute to policy and professional organization work related to teaching and learning mathematics.
   D. **Clinical Experiences**
      Supervised mathematics practicum in which candidates acquire experience working with a full range of students and teachers in various professional development settings.

Note: Candidates must be recommended for the advance certificate by an institution with a Department-approved program of study.